UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,314	01/28/2004	Stuart Lynch Blackburn	1033-NW1001	1206

34456	7590	03/25/2005

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EXAMINER
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ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/766,314	BLACKBURN, STUART LYNCH
	Examiner	Art Unit
	Shick C Hom	2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _1/28/04, 9/24/04_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-16_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-16_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _9/24/04_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   Figures 1 and 2 should be designated by a legend such as --
Prior Art-- because only that which is old is illustrated. See
MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR
1.121(d) are required in reply to the Office action to avoid
abandonment of the application. The replacement sheet(s) should
be labeled "Replacement Sheet" in the page header (as per 37 CFR
1.84(c)) so as not to obstruct any portion of the drawing
figures. If the changes are not accepted by the examiner, the
applicant will be notified and informed of any required
corrective action in the next Office action. The objection to
the drawings will not be held in abeyance.

Claim Objections

2.   Claims 4, 9, 14 are objected to because of the following
informalities: in claims 4, 9, 14 lines 1-2 spell out acronyms
by deleting "DS3" and inserting ---Digital Signal-level 3, DS-3-
--, and deleting "OC3" and inserting ---Optical Carrier-level 3,
OC-3---, for clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   Claims 5-6, 7-9, and 15-16 are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

In claims 5 and 15 line 3 which recite "the same data

transfer speed" lacks clear antecedent basis because no same

data transfer speed have been previously recited in the claims

and therefore the limitation is not clearly understood; further

it is not clear as to whether they're reciting ---a same data

transfer speed---. In claim 7 lines 11 and 13 which recite "the

customer data transmission slowdown indicator" and "the

subscriber lines," respectively, lack clear antecedent basis.

Claims 6, 8-9, and 16 are rejected under 35 U.S.C. 112, second

paragraph because they depend from rejected claims 5, 7, and 15,

respectively.

4.   The nonstatutory double patenting rejection is based on a
judicially created doctrine grounded in public policy (a policy
reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by
a patent and to prevent possible harassment by multiple
assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010
(Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed.
Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA
1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and,
In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37
CFR 1.321(c) may be used to overcome an actual or provisional
rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be
commonly owned with this application. See 37 CFR 1.130(b).
Effective January 1, 1994, a registered attorney or agent
of record may sign a terminal disclaimer. A terminal disclaimer
signed by the assignee must fully comply with 37 CFR 3.73(b).

5.   Claims 1-16 are provisionally rejected under the judicially

created doctrine of obviousness-type double patenting as being

unpatentable over claims 1-10 and 12-17 of copending Application

No. 10/842,842. Although the conflicting claims are not

identical, they are not patentably distinct from each other

because of the following:

For claims 1-6, the claims 1-6 of copending application

10/842,842 disclose a method of configuring a data network, the

method comprising: determining a bandwidth capacity of a

communications link connecting a digital subscriber line access

multiplexer (DSLAM) and an asynchronous transfer mode (ATM)

switch based on a first user type selected from a plurality of

user types, each of the plurality of user types having a

different bandwidth capacity; determining an average peak

bandwidth per user value based on the first user type;

determining a data transmission slowdown indicator that includes

a slowdown amount and a probability of experiencing a slowdown

event; determining an estimated maximum number of users of the
first user type for digital subscriber lines that may be
supported by the DSLAM, where the estimated maximum number of
users of digital subscriber lines is based on the average peak
bandwidth per user value, the bandwidth capacity of the
communication link, and the customer data transmission slowdown
indicator; and configuring the data network such that the DRAM
has a configured number of users of digital subscriber lines
that is less than or equal to the estimated maximum number of
users of digital subscriber lines (see claim 1);

wherein the estimated maximum number of users of digital
subscriber lines is further based on a probability of a random
user downloading data at a given period of time (see claim 2);

wherein the estimated maximum number of users of digital
subscriber lines is further based on an Erlang model calculation
(see claim 3);

wherein the communication link is one or more DS3 type
communication links or an OC3 type communication link (see claim
4);

wherein the estimated maximum number of users of digital
subscriber lines is calculated with an assumption that a first
set of users of the first user type download data at the same
data transfer speed and a second set of user having a second

user type download data at a different data transfer speed (see

claim 5);

wherein the data transfer speed is about 1.5 Mbits/second and

wherein the different data transfer speed is at least one of an

integer multiple of 1.5 Mbits/second, an integer multiple of 384

kb/second, or an integer multiple of 192 kb/second (see claim

6).

For claims 7-9, the claims 7-9 of copending application

10/842,842 disclose a method of configuring a data network, the

method comprising: determining a user type selected from a set

of available user types, each of the available user types

associated with a different bandwidth capacity; determining an

average peak bandwidth per user value for the data network and

based on the user type; determining a capacity of a

communication link connecting a remote terminal (RT) to

asynchronous transfer mode (ATM) switch via an optical

concentrator device, the capacity based on the bandwidth

capacity associated with the user type; determining a data

transmission slowdown indicator that includes a slowdown amount

and a probability of experiencing a slowdown event; determining

an estimated maximum number of users that may be supported by

the RT, where the estimated maximum number of users is based on

the average peak bandwidth per user value, the capacity of the

communication link, and the customer data transmission slowdown

indicator; and configuring the data network such that the RT has

a configured number of users of the subscriber lines that is

less than or equal to the estimated maximum number of users that

may be supported by the RT (see claim 7);

wherein the communication link comprises a plurality of T1

transmission lines (see claim 8);

wherein the communication link comprises one of an OC3 and one

or more DS3 links (see claim 9).

For claim 10, the claim 10 of copending application 10/842,842

disclose a data communications system comprising: a plurality of

digital subscriber lines; a digital subscriber line multiplexer

coupled to each of the plurality of digital subscriber lines;

and a data switch coupled to the digital subscriber line

multiplexer via a communication link; wherein the data

communications system is configured such that the number of

digital subscriber line users supported by the digital

subscriber line multiplexer is determined based on an estimated

maximum number of users, the estimated maximum number of users

determined based on an average peak bandwidth per user value, a

data communication capacity of the communication link, and a

data transmission slowdown indicator, wherein the data

communication capacity is determined based on a type of user

selected from a set of available user types (see claim 10).

For claims 11-16, the claims 12-17 of copending application

10/842,842 disclose a data communications system comprising: a

plurality of digital subscriber lines; a remote terminal device

coupled to each of the plurality of digital subscriber lines;

and a data switch coupled to the remote terminal device via a

communication link; wherein the data communications system is

configured such that the number of digital subscriber line users

supported by the remote terminal device is determined based on

an estimated maximum number of users, the estimated maximum

number of users determined based on an average peak bandwidth

per user value, a data communication capacity of the

communication link, and a data transmission slowdown indicator,

wherein the data communication capacity is determined based on a

type of user selected from a set of available user types (see

claim 12);

wherein the estimated maximum number of users of digital

subscriber lines is further based on a probability of a random

user downloading data at a given period of time (see claim 13);

wherein the estimated maximum number of users of digital

subscriber lines is further based on an Erlang model calculation

(see claim 14);

wherein the communication link is one or more DS3 type

communication links, an OC3 type communication link, or one or

more T1 type communication links (see claim 15);

wherein the estimated maximum number of users of digital

subscriber lines is calculated with an assumption that a

plurality of different users having the same user type download

data al: the same data transfer speed (see claim 16);

wherein the data transfer speed for the user type is about 1.5

Mbits/second (see claim 17).

The application's claims 1-6 merely broaden the scope of

copending application number 10/842,842 claims 1-6,

respectively, by eliminating the step of determining a bandwidth

capacity being based on a first user type selected from a

plurality of user types, each of the plurality of user types

having a different bandwidth capacity as in claim 1, wherein a

second user type download data at a different data transfer

speed as in claim 5; and wherein the different data transfer

speed is at least one of an integer multiple of 1.5

Mbits/second, an integer multiple of 384 kb/second, or an

integer multiple of 192 kb/second as in claim 6.

The application's claims 7-9 merely broaden the scope of

copending application number 10/842,842 claims 7-9,

respectively, by eliminating the step of determining a user type

selected from a set of available user types, each of the

available user types associated with a different bandwidth

capacity as in claims 7-9.

The application's claim 10 merely broaden the scope of copending

application number 10/842,842 claim 10 by eliminating wherein

the data communication capacity is determined based on a type of

user selected from a set of available user types as in claim 10.

Likewise, the application's claims 11-16 merely broaden the

scope of copending application number 10/842,842 claims 12-17,

respectively, by eliminating wherein the data communication

capacity is determined based on a type of user selected from a

set of available user types as in claim 12.

It has been held that the omission of a element and its function

is an obvious expedient if the remaining elements perform the

same function as before. In re Karlson, 136 USPQ (CCPA). Also

note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969); omission of a

reference element whose function is not needed would be obvious

to one skilled in the art.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

7.   Claim 1, 6-7, 10, and 11 rejected under 35 U.S.C. 103(a) as

being unpatentable over Kung et al. (6,570,855) in view of

Rappaport et al. (2004/0236547).

Regarding claims 1, 6-7, 10, 11:

    Kung et al. disclose the method of configuring a data

network, the method comprising: determining an bandwidth per

user value for the data network (see col. 15 line 35 to col. 16

line 2 which recite the gateway monitoring the bandwidth to

maintain an acceptable quality of service for the user);

determining a capacity of a communication link connecting a

digital subscriber line access multiplexer (DSLAM) and an

asynchronous transfer mode (ATM) switch (see col. 30 lines 49-65

which recite determining whether the load exceeds a

predetermined load level wherein the determination is based on a

number of load conditions; Fig. 1 which shows the ATM switch

connected to the gateway; and col. 16 line 54 to col. 17 line 4

which recite the gateway multiplexing streams of IP voice

packets); determining a data transmission slowdown indicator

that includes a slowdown amount and a probability of

experiencing a slowdown event (see col. 6 lines 19-33 which

recite the central station providing connectivity including

changing priority to maintain certain QoS requirement according

to traffic patterns and/or congestion clearly reads on the step

of determining a slowdown indicator); determining an estimated

maximum number of users of digital subscriber lines that may be

supported by the DSLAM, where the estimated maximum number of

users of digital subscriber lines is based on the bandwidth per

user value, the capacity of the communication link, and the

customer data transmission slowdown indicator; and configuring

the data network such that the DSLAM has a configured number of

users of digital subscriber lines that is less than or equal to

the estimated maximum number of users of digital subscriber

lines (see col. 30 lines 27-48 which recite the use of a metric being the maximum number of locations pending and the maximum number of locations allocated, the indication of a stressed process, and off loading clearly reads on determining an estimated maximum number of users and configuring the network such that the number is less).

For claims 1, 6-7, 10, 11, Kung et al. disclose all the subject matter of the claimed invention with the exception of the determined bandwidth being the average peak bandwidth per user as recited in claims 1, 7, 11, 11; and wherein the data transfer speed is about 1.5 Mbits/second as in claim 6.

Rappaport et al. from the same or similar fields of endeavor teach that it is known to provide the step of determining an average peak bandwidth per user and wherein the data transfer speed is about 1.5 Mbits/second (see paragraph 0195 which recite providing a graph which shows the allocated maximum bandwidth each user has been granted and the average peak bandwidth the user is using and wherein the speed is 1.5 Mbps). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the step of determining an average peak bandwidth per user as and wherein the data transfer speed is about 1.5

Mbits/second taught by Rappaport et al. in the communications method of Kung et al.

The step of determining an average peak bandwidth per user and wherein the data transfer speed is about 1.5 Mbits/second of Rappaport et al. can be implemented by substituting the step determining the average peak bandwidth and providing the data transfer speed being about 1.5 Mbits/second for the step of determining bandwidth of Kung et al. The motivation for using the average peak bandwidth per user and providing data transfer speed being about 1.5 Mbits/second as taught by Rappaport et al. in the communication method of Kung et al. being that it provides a higher probability for preventing a slowdown event for the user in Kung et al.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Voit et al. disclose traffic queueing for remote terminal DSLAMS.

Kamoi et al. disclose Traffic control system for asynchronous transfer mode exchange.

Bhat discloses predictable diverse data delivery enablement method and apparatus for ATM based computer system.

9.   Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Shick C

Hom whose telephone number is 571-272-3173. The examiner can

normally be reached on Monday to Friday with alternate Fridays

off.

      If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Seema Rao can be

reached on 571-272-3174. The fax phone number for the

organization where this application or proceeding is assigned is

703-872-9306.

      Information regarding the status of an application may be

obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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